Knowledge Exchange and Canadian Research on Aging

EQUAL-KT Workshop
Reading
March 16, 2009

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Overview

- What is the CIHR and the Institute of Aging?
- What does the Institute do?
- Setting our priorities
- Research stories
- Canada-UK
Canadian Institutes of Health Research (CIHR)

- Major health research funding agency for Canada
- Launched on June 7, 2000
- Replaces Medical Research Council and the National Health Research & Development Program of Health Canada
- Supports 12,000 researchers in universities, teaching hospitals, etc.

New structure for funding research:
- virtual Institutes
- multidisciplinary approach
Supporting 4 Pillars of Health Research

- Basic biomedical
- Clinical
- Health services, systems and policy
- Population health
CIHR Grants and Awards Funding: Research Themes

Increase from 1999-2000 to 2005-2006

<table>
<thead>
<tr>
<th>Research Theme</th>
<th>Increase (Millions)</th>
<th>Fold Increase</th>
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</thead>
<tbody>
<tr>
<td>Biomedical</td>
<td>$231 M</td>
<td>2</td>
</tr>
<tr>
<td>Clinical</td>
<td>$55 M</td>
<td>3</td>
</tr>
<tr>
<td>Health Systems</td>
<td>$38 M</td>
<td>20</td>
</tr>
<tr>
<td>Population Health</td>
<td>$59 M</td>
<td>10</td>
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Note:
Figures include a proportional distribution of projects where researchers had not selected a primary research theme.
Figures do not include CRC’s and NCE’s.
How CIHR Funds

70% Investigator-Initiated
(Open Competition)

30% Strategic Initiatives
- Targeted to address major health challenges
- Requests for Applications (RFAs)
- Developed by Institutes
CIHR – Institutes

Health Systems and Policy Research
Circulatory and Respiratory Health
Aboriginal Peoples' Health
Cancer Research
Musculoskeletal Health and Arthritis
Nutrition, Metabolism and Diabetes
Neurosciences, Mental Health and Addiction
Human Development, Child and Youth Health
Population and Public Health
Genetics
Gender and Health
Infection and Immunity

Aging
Canada is Aging

By 2015, the number of older Canadians will surpass the number of children for the first time.

If projections hold true, by 2031 there will be approximately 9 million Canadians over 65 years, compared to 6 million under 16 years.
Institute of Aging: Mission

The advancement of knowledge in the field of aging to improve the quality of life and the health of older Canadians.
Institute of Aging: Five Priority Topics

- Cognitive impairment in aging
- Aging and maintenance of functional autonomy
- Healthy and successful aging
- Biological mechanisms of aging
- Health services and policies relating to older people
Dementia in Canada

The Impact of Demographic Changes on Annual Incidence of Dementia in Canada

Note: this chart assumes constant age-sex prevalence rates for dementia, and shows the impact of the growth in the elderly population on numbers of people with dementia.

Prevalence of disability in adults 15 years of age or older, Canada, 2006

Source: Statistics Canada, Participation and Activity Limitation Survey, 2006
Knowledge Exchange: Stakeholder consultations

Regional Seniors' Workshops on Research

- British Columbia & North
- Prairies
- Ontario
- Quebec
- Atlantic
Regional Seniors' Workshops on Research

Over 300 older Canadians, along with NGOs, service providers, policy makers from across the country asked – which issues should be priorities for health research?
1. Health Care and Health Services
   - Training providers
   - Access to services
   - Medications

“Research should examine how to change the orientation of health professionals from drivers to partners in health care. Seniors want a partnership that allows them to explore available options and what works for them”
2. Housing-Care Continuum

- What are the best residential and care options as one ages?
- Is ‘aging in place’ appropriate for all?
- What models of policy, finance and support have been successful?

“I didn’t want to share a room in university residence so what makes you think I want to share one now in a nursing home?”
3. Health promotion and the determinants of health

“We look at illness before we look at why people are healthy. But shouldn’t we find out why some people age well? “
Other key issues we heard about.....

- Isolation and Mental Health
- Ageism and public profile of elderly
- Caregiving
- Culture and Cultural Differences
The Institute is addressing these needs through:

- Strategic research funding
- Building capacity for research in aging
- Enhancing knowledge translation and exchange, including public engagement
- Forming new alliances
  - International collaborations
Kenneth Rockwood, Dalhousie University, Halifax

**Challenge:** gap between research knowledge and practice in diagnosis, treatment and care in Alzheimer Disease

**Goals of RAPID national network:**
- Train scientists and clinicians in knowledge translation and exchange;
- Enhance knowledge and skills of patients and caregivers;
- Strengthen links between industry, researchers, clinicians, caregivers, and persons with dementia.
Teresa Liu-Ambrose, UBC Vancouver

Challenge: over 20,000 older Canadians suffer hip fractures annually; 60% of older adults with cognitive impairment fall annually - approximately twice that of cognitively normal peers

Research: can strength training exercises prevent cognitive decline and reduce falls in older women?

Outcomes: falls reduced not only by improving physiological functions but also by improving cognitive performance.
Training Grants

Dr. Bruce Schneider, University of Toronto

Challenge: difficulty quickly responding to what is said
• often blamed on cognitive misfiring - a ‘senior moment’
• if frequent - ‘senility’ is suspected; withdrawal

Research: understanding physiology and environmental issues

Impact: scientists advising/developing technology and suitable environments for communication
Challenge: Helping elderly Canadians stay road-worthy:

- Independence and self esteem
- Linked to services
- Socially connected

- 25% of Canadian elderly live in rural areas
- Suburbs are greying
- Elderly have high rate of vehicle collisions and related injuries as compared to other drivers.
- Losing the ability to drive is associated with depression “worse than death”; affects patient/physician relationship
Team grants:  
Canadian Driving Research Initiative for Vehicular Safety in the Elderly - CanDRIVE

Dr. Malcolm Man-Son-Hing  Elisabeth Bruyère  
Research Institute, Ottawa

Research: extending the safe driving period for all drivers

• understanding the impact of medical and functional impairments on driving
• testing effects of assistive technology in vehicle
• evidence-based guidelines for clinicians and licensing
• lessening the impact of driving cessation in those who must stop
Capacity Building: Summer Program in Aging (SPA)

Objective:
To fast-track emerging scholars to success at increasing knowledge and its translation.

Four-day retreat designed to advance skills of trainees in aging.

Fifty applicants invited based on diversity of discipline, geography, institution and degree program in order to ensure cross-disciplinary learning and national network development.
Cafés Scientifique
- Research discussions between the public and experts at a café, a pub or a restaurant
- Local organizers identify topic and invite experts
- Institute funds researcher travel and cost of venue
Percentage of population over 65 worldwide

Source: UN Department of Economic and Social Affairs, 2007
International: Canada-UK

- **NDA**: partnership
- **Canada-UK**: cohort studies exploring harmonization and data sharing
- **UK-Canada**: technology for dementia care
- **Institute Advisory Board**: Peter Lansley
To excel, according to internationally accepted standards of scientific excellence in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health-care system...
I see from the departmental bulletin that you've been researching the same thing I have for the past twenty years.
“To the individual who devotes his life to science nothing can give more happiness than when the results immediately find practical application.

There are not two sciences. There is science and the application of science, and these two are linked as the fruit is to the tree.”

Louis Pasteur 1822-95
The Future is AGING!

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International Society for Gerontechnology
7th World Conference
May 27-30, 2010
Vancouver, Canada
Marriott Pinnacle Hotel

Bringing together people who design, develop, prescribe, research and use technology to enhance the functional capacity and quality of life of older adults. The perfect venue for dialogue between engineers, ICT experts, computer scientists, gerontologists, health and social care professionals, architects, social science researchers and educators and others working in this multi-disciplinary field.

Topics include:
cutting-edge innovations in: smart homes and smart materials, robotics, mobile and wireless communication systems, online goods and services, computer games, and applications of new technologies in health and social care. The latter include management of chronic illness in the community and supporting people with dementia living at home or in congregate settings.

The conference will also address markets and business issues including: Understanding the older consumer, developing effective markets for care technology, connectedness and the digital divide, and knowledge transfer from research into commercial products.

For more information
email: isg2010@sfu.ca | url www.sfu.ca/grc/isg2010